

PROJECT DESCRIPTION

EQUIPMENT LISTS (CON'T.)

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with interconnect at the intersection of MD 28 (Darnestown Road) and MD 112 (Seneca Road) in Montgomery County. The modification is necessary due to the addition of the Food Lion Driveway on the northside of the intersection. The existing interconnect cable shall be maintained at this location. MD 28 (Darnestown Road) is assumed to run in an east-west direction.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA four-phase, semi-actuated mode, with the MD 28 (Darnestown Road) approaches running concurrently. For side sampling stations shall be provided on both legs of MD 28 (Darnestown Road) and southbound MD 112 (Seneca Road) at this intersection. The MD 112 (Seneca Road) approach shall run concurrently with the proposed Food Lion Driveway.
- A full-traffic-actuated, eight-phase controller with three (3) four-channel, rack mount loop detector amplifiers, L.A.U., L.A.U. Panel and associated harnesses housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

- All field wiring to the existing controller cabinet shall be terminated to the appropriate controller cabinet connectors by the Contractor and labeled. All other controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.
- Disconnecting and splicing of interconnect cable shall be performed by Montgomery County Forces. The contractor shall run the interconnect cable into the base of each cabinet and properly tag the cable. Contact Mr. Bob Gonzales at (301) 217-2182 seventy-two hours in advance of intended work.

EQUIPMENT LISTS

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

QUANTITY	SPEC. SECTION	DESCRIPTION
10 Each	814	Furnish and install 12", one-way, three-section (R.Y.G) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.
1 Each	816	Furnish and install eight-phase, full-traffic-actuated, solid state digital controller with three (3) four-channel, rack mount loop detector amplifiers, Intersection Monitor with battery back-up for phone drop and associated harnesses housed in a NEMA size "6" base-mounted cabinet.
29 S.F.	813	Furnish and install sheet aluminum signs to consist of: 1 Each D3-2 "Darnestown RD 14000> Darnestown RD 14000" dual-faced sign, (variable x 16") mast arm mounted. 2 Each D3-2 "(arrow) Seneca RD 14200> Seneca RD 14200" (arrow)" dual-faced sign, (variable x 16") mast arm mounted. 1 Each R3-5R "RIGHT TURN ONLY" sign (30"x 36") mast arm mounted.
Lump Sum	106	Mobilization.
Lump Sum	106	Maintenance of traffic.
150 S.F.	104	Temporary traffic sign.
15 U.D.	105	Flashing arrow panels.
4 C.Y.	204	Test pit excavation.
1500 L.F.	SP-555	Furnish and install thermoplastic pavement marking tape, yellow (5" width for centerlines).
900 L.F.	SP-555	Furnish and install thermoplastic pavement marking tape, white (5" width for lanelines).
25 L.F.	SP-555	Furnish and install thermoplastic pavement marking tape, yellow (10" width for crosshatching).
240 L.F.	SP-555	Furnish and install thermoplastic pavement marking tape, white (10" width for crosshatching).
85 L.F.	SP-555	Furnish and install thermoplastic pavement marking tape, white (24" width for stoplines).
22 C.Y.	801	Furnish and install concrete foundation.
5 Each	804	Furnish and install ground rod, 3/4" diameter x 10' length.
1 Each	818	Furnish and install 27' steel pole with a 40' mast arm. (Note: 4 anchor bolts will be 1 3/4" x 90".)
1 Each	818	Furnish and install 27' steel pole with a 44' mast arm. (Note: 4 anchor bolts will be 1 3/4" x 90".)
1 Each	818	Furnish and install 27' steel pole with a 50' mast arm. (Note: 4 anchor bolts will be 1 3/4" x 90".)
1 Each	818	Furnish and install 27' steel pole with a 60' mast arm. (Note: 4 anchor bolts will be 1 3/4" x 90".)
1 Each	870	Furnish and install 2" weatherhead.
435 L.F.	815	Furnish and install sawcut.
45 L.F.	805	Furnish and install 1" galvanized steel electrical conduit (detector wire sleeve).
20 L.F.	805	Furnish and install 1" liquid tight flexible non-metallic electrical conduit (detector wire sleeve).

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR (CON'T.).

QUANTITY	SPEC. SECTION	DESCRIPTION
30 L.F.	805	Furnish and install 2" polyvinyl chloride electrical conduit (Schedule 80) (riser).
115 L.F.	805	Furnish and install 2" polyvinyl chloride electrical conduit (Schedule 80) (trenched).
145 L.F.	805	Furnish and install 3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).
70 L.F.	805	Furnish and install 3" polyvinyl chloride electrical conduit (Schedule 80) (slotted).
30 L.F.	805	Furnish and install 4" polyvinyl chloride electrical conduit (Schedule 80) (trenched).
1 Each	807	Furnish and install control and distribution equipment.
5 Each	811	Furnish and install handhole (frame and cover).
445 L.F.	804	Furnish and install stranded bare copper ground wire (No. 6 A.W.G.).
1835 L.F.	810	Furnish and install loop wire (No. 14 A.W.G.) encased in 1/4" flexible tubing.
1225 L.F.	810	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.) (aluminum shielded).
270 L.F.	810	Furnish and install 2-conductor electrical cable (No. 12 A.W.G.) copper Type TC.
220 L.F.	810	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).
1215 L.F.	810	Furnish and install 7-conductor electrical cable (No. 14 A.W.G.).
360 L.F.		Remove existing pavement markings (grinder method).
1 Each		Remove existing ground mounted sign and post.
2 Each		Relocate existing ground mounted sign and post.
1 Each		Remove and chip concrete foundation 12" below grade.
1 Each		Removal and delivery of existing controller/cabinet.
1 Each		Furnish and install 15' lighting arm.
1 Each		Furnish and install 250W HPS luminaire.
1 Each		Remove and dispose of existing material and equipment.
1 Each		Use existing plan on disk and as-built traffic control device.

NOTE: All equipment and/or materials to be removed by the Contractor but not listed above are to become the property of the Contractor.

CATEGORY 800
UTILITIES
SECTION 875-UTILITIES

The following contact persons for District #3 are as follows:

Mr. Charlie Watkins
District Engineer
Phone: (410) 513-7311

Mr. Majid Shakib
Assistant District Engineer - Traffic
Phone: (410) 513-7359

Mr. Randy Brown
Assistant District Engineer - Maintenance
Phone: (410) 513-7304

Mr. Augie Rebish
Assistant District Engineer - Utility
Phone: (410) 513-7350

Mr. Richard L. Doff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

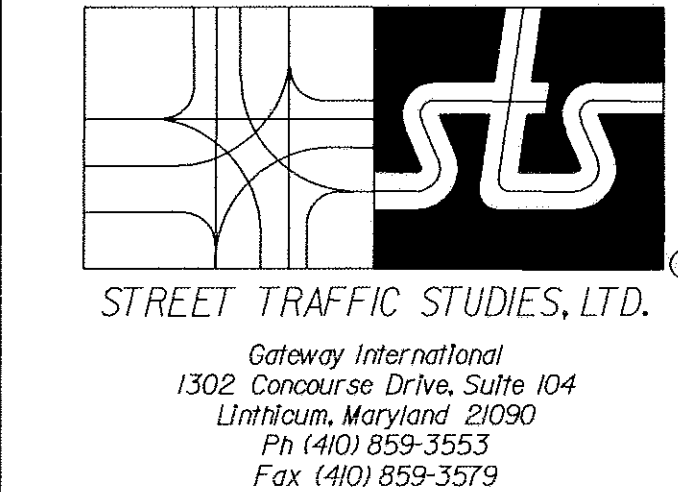
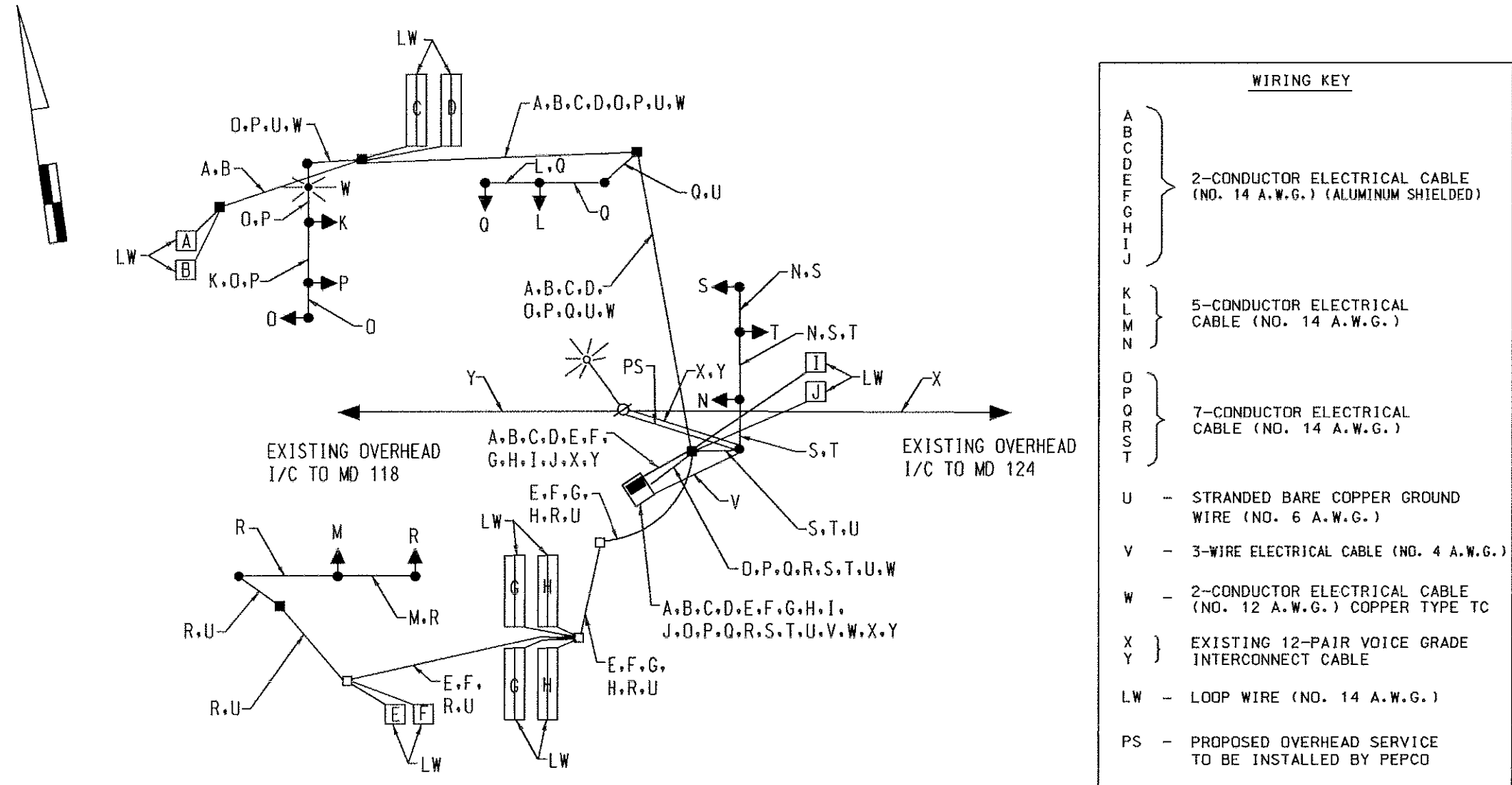
The power company representative is:

Ms. Robyn Law
Potomac Electric Power Co.
Customer Engineering
Montgomery County Region
1610 Gather Road
Rockville, Maryland 20850
(301) 670-8740

PHASE CHART

	1	2	3	4	5	6	7	8	9	10
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



334061

REVISIONS	APPROVALS
© 4-98 REBUILD SIGNAL DUE TO MD 28 WIDENING SHA NO. 1	ASST. CHIEF TEDD SECTION
RRZ 10/4/98	ASST. DISTRICT ENGINEER, TRAFFIC
B 12-89 RECUT LOOP DETECTORS ADD GEOMETRICS	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
DLD A 8-89 ADD LOOP DETECTOR DO TO NEW LANE DESIGN	DIRECTOR, TRAFFIC & SAFETY



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION

MD 28 AND MD 112

DRAWN BY: THACKER/R.R.Z.
CHECK BY: EMM/D.J.D
DATE: 10-89
SCALE: N/A

COUNTY: MONTGOMERY
LOG MILE: 15002813.18
F.A.P. NO.:
S.H.A. NO. BW-306-802-312

TS NO.
2372C-G1
T.J.M.S. NO.

SHEET NO.
3 OF 3